

A **WHAT IS CLAIMED IS:**
CLAIMS:

Sub 1

1. A semiconductor device having a semiconductor body which on a surface comprises an integrated circuit containing protection means for protection against electrostatic discharge (ESD), the means being a compound element of an SCR and a gated diode, the protection means being provided in a surface area of a first conductivity type having a well of a second, opposite, conductivity type in which area a surface zone of the first conductivity type is formed forming one of the anode and cathode zones of the SCR element, and the surface area having a surface zone of the second conductivity type, further denoted as first zone, situated remote from the well and forming the other anode and cathode area of the SCR element, the gated diode containing a gate insulated from the surface of the semiconductor body and a highly-doped second conductivity type surface zone aligned to this gate further denoted as second zone, which aligned surface zone partly overlaps the well of the second conductivity type, characterized in that the said second zone stretches out only along a part of the periphery of the well, whereas the first zone is provided along at least another part of this periphery of the well which is free from the said second zone.

2. A semiconductor device as claimed in claim 1, characterized in that the gate of the gated diode substantially stretches out only along that part of the periphery of the well along which also the said second zone of the second conductivity type stretches out.

Sub 2

3. A semiconductor device as claimed in claim 2, characterized in that the gated diode is arranged in the form of a MOS transistor which has a further surface zone of the second conductivity type, deposited in the surface area of the first conductivity type, the said second zone forming one of the source/drain zones of the transistor and the said further surface zone forming the other one of the source/drain zones of the transistor, the said first zone of the second conductivity type being situated at a shorter lateral distance from the surface zone of the first conductivity type provided in the well than the said further surface zone.

